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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,553

07/20/2004

Jeremy E. Morin

3901

4359

23699 7590 02/21/2007
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EXAMINER

CORDRAY, DENNIS R

ART UNIT

PAPER NUMBER

1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/710,553

Applicant(s)

MORIN ET AL.

Examiner

Dennis Cordray

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1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/14/04, 10/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to a method of making a paperboard comprising adding a high modulus filler to a pulp slurry and the board formed thereby, classified in class 162, subclass 181.1.
 - II. Claims 14-19, drawn to a method of making a paperboard comprising coating a filler and adding the coated filler to a pulp slurry and the board formed thereby, classified in class 162, subclass 156.

Inventions I and II are directed to related processes. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed inventions have a materially different design, mode of operation, function, or effect. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

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2. During a telephone conversation with Mr. Harold Fassnacht on 2/9/2007 a provisional election was made without traverse to prosecute the invention of group II, Claims 14-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 14 and 17-19 are rejected under 35 U.S.C. 102(b) as anticipated by Mathews (3035965).

Mathews discloses a process for making paper of excellent strength (col 1, lines 9-11 and 66-68; col 2, lines 18-44) comprising:

Precipitating a thermoplastic polymer onto glass fibers (col 2, lines 59-65; col 4, lines 22-42), thus producing glass fibers coated with a resin matrix;

Admixing the coated glass fibers with a slurry of cellulosic fibers (col 4, lines 42-45), forming a modified pulp slurry; and

Forming a sheet and drying on a paper machine (col 4, lines 45-49), thus forming a paper.

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The thermoplastic coating can be polyvinyl acetate (col 2, lines 15-18), which is recited in the instant Specification (p 6, par 40) as being a suitable resin coating.

Other examples are given of the process used with coated glass fibers and a slurry of Orlon fibers to make a paper (cols 3 to 9, Examples 1-2 and 5-19), and properties of the finished papers made by the process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathews in view of Provance et al (3408213).

Mathews does not disclose the elastic modulus of the glass fibers.

Provance et al discloses glass fibers of high strength for use in making high strength laminates and structural materials (col 1, lines 13-14 and 25-33). The fibers have an elastic modulus of 12.1 to 14.7 million psi, or from 86.6 to 101 GPa (cols 3-7, Examples I to X).

The art of Mathews, Provance et al and the instant invention is analogous as pertaining to papers and paperboards comprising glass fibers to provide high strength. It would have been obvious to one of ordinary skill in the art at the time of the invention

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to use the claimed glass fibers in the paper of Mathews in view of Provance et al to provide the highest strength possible.

5. Claim 19 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cole et al (4379808).

Cole discloses a forming board sheet comprising at least one layer made up of cellulosic fibers and an inorganic filler, which can be glass fibers (col 1, lines 52-62 and col 2, lines lines 6-8).

Claim 19 is product-by-process claim. The product of Cole et al appears to be the same as or similar to the claimed product, a paper or paperboard, although produced by a different process. The burden therefore shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). "In the event any differences can be shown for the product of the product-by-process claims 1, 5 and 12-14 as opposed to the product taught by the reference Cook et al, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results: see also In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)"

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Hawley et al (2698558) discloses a method for forming a felted product by mixing a thermoplastic resin with glass fiber bundles, curing the resin onto the fibers, then forming sheets or contoured articles.

Graham (4361465) discloses treating glass fibers with a mixture of phosphate esters of polyoxyalkylene alkyl alcohol, polyamine and organic acid to give better aqueous dispersion of the fibers to form a more uniform sheet-like product.

Von Hazmburg (3562097) discloses a cover sheet for gypsum boards comprising cellulosic and mineral fibers, which can be glass fibers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DRC
DRC

Steven P. Griffin
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